

WHAT IS CLAIMED IS:

1. A display apparatus comprising:

a plurality of display devices disposed on a line of sight of an observer in front and rear relation to one another for superposing and displaying a plurality of images on an object to be displayed on said line of sight;

an intensity adjustment device for adjusting intensity of light emitted by at least one display device of said plurality of display devices so that the intensity difference between the light having maximum intensity in an observation position of said observer and the light having minimum intensity in said observation position of light respectively emitted by said plurality of devices may fall within a first predetermined range; and

15 a chromaticity adjustment device for adjusting chromaticity of light emitted by said one display device so that chromaticity coordinates in said observation position of the light emitted by the respective arbitrarily selected two display devices of said plurality of display devices of 20 the light respectively emitted by said plurality of display devices distribute within a second predetermined range.

2. A display apparatus comprising:

a plurality of display devices disposed on a line of sight of an observer in front and rear relation to one another for superposing and displaying a plurality of images on an object to be displayed on said line of sight;

an intensity adjustment device for adjusting intensity  
of light emitted by at least one display device of two  
adjacent display devices of said plurality of display  
devices so that the intensity difference between the light  
5 having maximum intensity in an observation position of said  
observer and the light having minimum intensity in said  
observation position of light respectively emitted by said  
adjacent two devices may fall within a first predetermined  
range; and

10 a chromaticity adjustment device for adjusting  
chromaticity of light emitted by said one display device so  
that chromaticity coordinates in said observation position  
of the light respectively emitted by said adjacent two  
display devices distribute within a second predetermined  
15 range.

3. A display apparatus according to Claim 1, wherein  
assuming that said maximum intensity is C1 and said minimum  
intensity is C2, said intensity difference is expressed by  
20  $(C1 - C2)/(C1 + C2)$ , and said first predetermined range is  
equal to or less than 0.15.

4. A display apparatus according to Claim 3,  
wherein said first predetermined range is less than 0.075.

5. A display apparatus according to Claim 1, wherein said chromaticity coordinates are chromaticity coordinates indicated by the XYZ color system, and

5       said second predetermined range is a range in which the difference between x coordinates and the difference between y coordinates of said chromaticity coordinates are equal to or less than 0.06, respectively.

10      6. A display apparatus according to Claim 5, wherein said second predetermined range is a range in which the difference between x coordinates and the difference between y coordinates of said chromaticity coordinates are equal to or less than 0.03, respectively.

15      7. A display apparatus according to Claim 1, wherein said plurality of display devices can perform display in R, G, and B colors, and

20       at least one of said intensity adjustment device and said chromaticity adjustment device performs adjustment on the light with respect to the R, G, and B colors.

25      8. A display apparatus according to Claim 1, wherein at least one of said intensity adjustment device and said chromaticity adjustment device performs adjustment on white light emitted by said one display device.

9. A display apparatus according to Claim 1, wherein said intensity adjustment device further coordinates gamma characteristics of said plurality of display devices.

5 10. A display apparatus according to Claim 1, wherein at least one of said intensity adjustment device and said chromaticity adjustment device performs adjustment on the light emitted by respective screen piece units as units into which said one display device is divided within its  
10 screen.

11. A display apparatus according to Claim 10, wherein said screen piece unit is a pixel block or a pixel line constituted by one pixel or a group of a plurality of  
15 pixels in said one display device.

12. A display apparatus according to Claim 1, wherein at least ones of gradients of intensity change and gradients of chromaticity within the respective screens of said  
20 plurality of display devices are equal to each other.

13. A display apparatus according to Claim 1, wherein said intensity adjustment device adjusts the intensity of said light so that intensity irregularities of said one display  
25 device and intensity irregularities of another display device of said plurality of display devices may have the same tendency to each other.

14. A display apparatus according to Claim 1, wherein said chromaticity adjustment device adjusts the chromaticity of said light so that color irregularities of said one display  
5 device and color irregularities of another display device of said plurality of display devices may have the same tendency to each other.

15. A display apparatus according to Claim 1, wherein at least one of said intensity adjustment device and said chromaticity adjustment device performs adjustment by rewriting image information on at least one of intensity and chromaticity that said one display device has.  
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15 16. A display apparatus according to Claim 1, further comprising an input device that can input an instruction for adjusting at least one of intensity and chromaticity of said light,

wherein at least one of said intensity adjustment  
20 device and said chromaticity adjustment device performs adjustment according to said instruction.

17. A display apparatus according to of Claim 1, wherein at least display devices other than a display device  
25 disposed most rearward seen from said observer of said plurality of display devices are constituted by a translucent display device.

18. A display apparatus according to Claim 17, wherein said translucent display device is a liquid crystal display device or an electroluminescence display device.

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19. A display apparatus according to Claim 1, wherein said plurality of display devices include a display device constituted by a half mirror.

10 20. A display method relating a display apparatus including a plurality of display devices disposed on a line of sight of an observer in front and rear relation to one another for superposing and displaying a plurality of images on an object to be displayed on said line of sight,  
15 the method comprising:

a display process of displaying said plurality of images on said plurality of display devices;

20 an intensity adjustment process of adjusting intensity of light emitted by at least one display device of said plurality of display devices so that the intensity difference between the light having maximum intensity in an observation position of said observer and the light having minimum intensity in said observation position of light respectively emitted by said plurality of devices may fall  
25 within a first predetermined range; and

a chromaticity adjustment process of adjusting chromaticity of light emitted by said one display device so

that chromaticity coordinates in said observation position  
of the light emitted by the respective arbitrarily selected  
two display devices of said plurality of display devices of  
the light respectively emitted by said plurality of display  
5 devices may distribute within a second predetermined range.

21. A display method relating a display apparatus  
including a plurality of display devices disposed on a line  
of sight of an observer in front and rear relation to one  
10 another for superposing and displaying a plurality of  
images on an object to be displayed on said line of sight,  
the method comprising:

a display process of displaying said plurality of  
images on said plurality of display devices;

15 an intensity adjustment process of adjusting intensity  
of light emitted by at least one display device of two  
adjacent display devices of said plurality of display  
devices so that the intensity difference between the light  
having maximum intensity in an observation position of said  
20 observer and the light having minimum intensity in said  
observation position of light respectively emitted by said  
adjacent two devices may fall within a first predetermined  
range; and

25 a chromaticity adjustment process of adjusting  
chromaticity of light emitted by said one display device so  
that chromaticity coordinates in said observation position  
of the light respectively emitted by said adjacent two

display devices may distribute within a second predetermined range.